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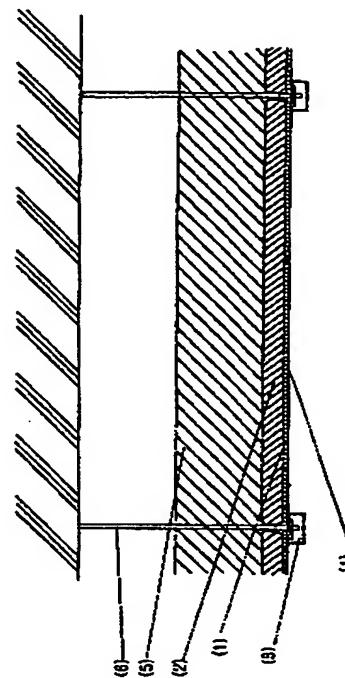
APPLICATION DATE : 20-04-89
APPLICATION NUMBER : 01102835

APPLICANT : SUMITOMO CHEM CO LTD;

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TITLE : CEILING BUILT-IN HEATER/COOLER



ABSTRACT : PURPOSE: To shorten a term and to largely reduce a weight by superposing a lower hollow panel and a heat accumulation plate filled with specific latent heat accumulation material, and feeding hot water or cold water to the panel to cool with latent heat or radiating heat or receiving heat from the panel into the room.

CONSTITUTION: A hollow panel 1 is formed of a synthetic resin panel in which two parallel sheets, a hollow plate material having 2-20mm of thickness having parallel passages formed of a plurality of partition walls are provided with a header for coupling the passages and an exit to the header, and a heat accumulation material having approx. 18-40°C of solidifying or melting temperature is used as a latent heat accumulation material 2. A latent heat accumulation plate in which the material 2 is contained at the upper side of the panel 1 is placed, cold water is prepared by utilizing discount fee power in cooling period of summer to accumulate cold, and radiation cooling is conducted by heat absorption of the material 2 in daytime, hot water is prepared mainly by general fee power or other heat source in heating period of winter, and radiation heating is conducted by heat radiation from the panel 1.

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